

AMENDMENTS TO THE CLAIMS:

Claims 77-96 are canceled without prejudice or disclaimer. Claims 97-112 are added. The following is the status of the claims of the above-captioned application, as amended.

Claims 1-96 (Canceled).

Claim 97 (New). A method for selecting a variant of a reference protein having a known amino acid sequence, comprising

(a) forming one or more DNA molecules encoding one or more variants of the reference protein and using the one or more DNA molecules to produce the one or more variants of the reference protein;

(b) raising antibodies against the reference protein and the one or more variants thereof;

(c) mapping one or more epitopes of the reference protein with immunological and proteochemical techniques by incubating the antibodies raised in step (b) with the reference protein and at least one of the one or more variants thereof; and

(d) selecting a variant, which (i) has an altered amino acid sequence of one or more epitopes of the reference protein, (ii) has biological activity, and (iii) evokes a lower immunogenic response in an animal than the reference protein.

Claim 98 (New). The method of claim 97, wherein the reference protein is an industrial enzyme.

Claim 99 (New). The method of claim 98, wherein the enzyme is a detergent enzyme.

Claim 100 (New). The method of claim 99, wherein the detergent enzyme is an amylase, cellulase, lipase, oxidase, or protease.

Claim 101 (New). The method of claim 97, wherein the reference protein is a process enzyme.

Claim 102 (New). The method of claim 101, wherein the process enzyme is an amylase, cellulase, lipase, or lyase.

Claim 103 (New). The method of claim 97, wherein the reference protein is a medicinal protein.

Claim 104 (New). The method of claim 103, wherein the medicinal protein is a hormone or medicinal enzyme.

Claim 105 (New). A method for selecting a variant of a reference protein having a known amino acid sequence, comprising

- (a) raising polyclonal antibodies against the reference protein;
- (b) mapping one or more epitopes of the reference protein with immunological and proteochemical techniques by:
 - (i) incubating the polyclonal antibodies with the reference protein or with a variant thereof; and
 - (ii) incubating the mixture from step (i) with another protein selected from the group consisting of the reference protein and variants thereof;
- (c) selecting a variant, which (i) has an altered amino acid sequence of one or more epitopes of the reference protein, (ii) has biological activity and (iii) evokes a lower immunogenic response in an animal than the reference protein.

Claim 106 (New). The method of claim 105, wherein the reference protein is an industrial enzyme.

Claim 107 (New). The method of claim 106, wherein the enzyme is a detergent enzyme.

Claim 108 (New). The method of claim 107, wherein the detergent enzyme is an amylase, cellulase, lipase, oxidase, or protease.

Claim 109 (New). The method of claim 105, wherein the reference protein is a process enzyme.

Claim 110 (New). The method of claim 109, wherein the process enzyme is an amylase, cellulase, lipase, or lyase.

Claim 111 (New). The method of claim 105, wherein the reference protein is a medicinal protein.

Claim 112 (New). The method of claim 111, wherein the medicinal protein is a hormone or medicinal enzyme.